19 ~~89.~~ (Claim 28/72 Amended and Rewritten in Independent Form) A method for operating an internal combustion engine, the method comprising the steps of:

directing air through a first intake port to a cylinder during an intake stroke of a piston cooperating with the cylinder;

directing compressed air through a second intake port to the cylinder only during a compression stroke of the piston;

controlling the time of operation of a compressor generating the compressed air and the timing of intake valves cooperating with the first and the second intake ports; and,

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controlling one or more air charge characteristics selected from the group consisting of turbulence, density, pressure, temperature, mean pressure and peak pressure.

20
~~90.~~ (Claim 37/73 Amended and Rewritten in Independent Form) A method of operating an internal combustion engine, the method comprising the steps of:

introducing air through a first intake port into a cylinder during an intake stroke of a piston cooperating with the cylinder;

introducing compressed air through a second intake port into the cylinder during a compression stroke of the piston.;

controlling the time of operation of a compressor generating the compressed air and the timing of the first and the second intake valves; and,

controlling one or more air charge characteristics selected from the group consisting of turbulence, density, pressure, temperature, mean pressure and peak pressure.

21
~~91.~~ (Claim 39/73 Amended and Rewritten in Independent Form) A method of operating an internal combustion engine, the method comprising the steps of:

introducing air through a first intake port into a cylinder during an intake stroke of a piston cooperating with the cylinder;

introducing compressed air through a second intake port into the cylinder during a compression stroke of the piston.;

controlling the time of operation of a compressor generating the compressed air and the timing of the first and the second intake valves; and,

controlling one or more air charge characteristics selected from the group consisting of turbulence, density, pressure, temperature, mean pressure and peak pressure.

22
~~92.~~ (Claim 28/77 Rewritten in Independent Form) A method of operating an internal combustion engine, the method comprising the steps of:

directing air through a first intake port into a cylinder during an intake stroke of a piston cooperating with the cylinder;

increasing the air charge density and turbulence in the engine, including the step of directing compressed air through a second intake port into the cylinder during a compression stroke of the piston;

controlling the time of operation of a compressor generating the compressed air and the timing of intake valves cooperating with the first and the second intake ports; and,

controlling one or more air charge characteristics selected from the group consisting of turbulence, density, pressure, temperature, mean pressure and peak pressure.

23
~~93.~~ (Claim 83/82/81 Amended and Rewritten in Independent Form) A method of operating an internal combustion engine having a crankshaft driven by at least one piston moving through a plurality of power cycles, each power cycle involving at least a compression stroke and an expansion stroke aided by combustion taking place within a cylinder, wherein the compression stroke results in compressing of air and fuel within the cylinder, said method comprising the steps of

introducing during each power cycle air through a first port into a cylinder;

introducing during each power cycle a compressed air charge through a second port into the cylinder;

wherein a first intake valve cooperates with the first port and a second intake valve cooperates with the second port, the second intake valve occupying an open position only while the first intake valve occupies a closed position;

controlling the time of operation of a compressor generating the compressed air and the timing of the first and the second intake valves; and,

controlling one or more air charge characteristics selected from the group consisting of turbulence, density, pressure, temperature, mean pressure and peak pressure.

24
~~94.~~ (Claim 85/84/81 Amended and Rewritten in Independent Form) A method of operating an internal combustion engine having a crankshaft driven by at least one piston moving through a plurality of power cycles, each power cycle involving at least a compression stroke and an expansion stroke aided by combustion taking place within a cylinder, wherein the compression stroke results in compressing of air and fuel within the cylinder, said method comprising the steps of

introducing during each power cycle air through a first port into a cylinder;

introducing during each power cycle a compressed air charge through a second port into the cylinder;

wherein a first intake valve cooperates with the first port and a second intake valve cooperates with the second port, the second intake valve occupying an open

position only during the compression stroke;

controlling the time of operation of a compressor generating the compressed air and the timing of the first and the second intake valves; and,

controlling one or more air charge characteristics selected from the group consisting of turbulence, density, pressure, temperature, mean pressure and peak pressure.

Please add the following new claims 95 - 97

25
95. (New) The method of claim ~~89~~ 19 20 21 22 23 24, ~~90, 91, 92, 93~~ or ~~94,~~ comprising the step of producing a super-charged air density and increasing turbulence in a low compression engine.

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96. (New) The method of claim ~~89~~ 19 20 21 22 23 24, ~~90, 91, 92, 93~~ or ~~94,~~ wherein compressed air is introduced through a second port into the cylinder after compression has begun.

27
97. (New) The method of claim ~~93~~ 23 or ~~94~~ 24, wherein the step of introducing during each power cycle a compressed air charge through a second port into the cylinder, includes the step of varying the compressed air charge introduced in one cycle of the plurality of power cycles from the compressed air charge introduced during another of the cycles of the plurality of power cycles.

REMARKS

The foregoing amendments and these remarks are made in response to the Office Action dated December 17, 2002. The undersigned expresses appreciation for the Examiner's time spent during a telephone conference on April 2, 2003.